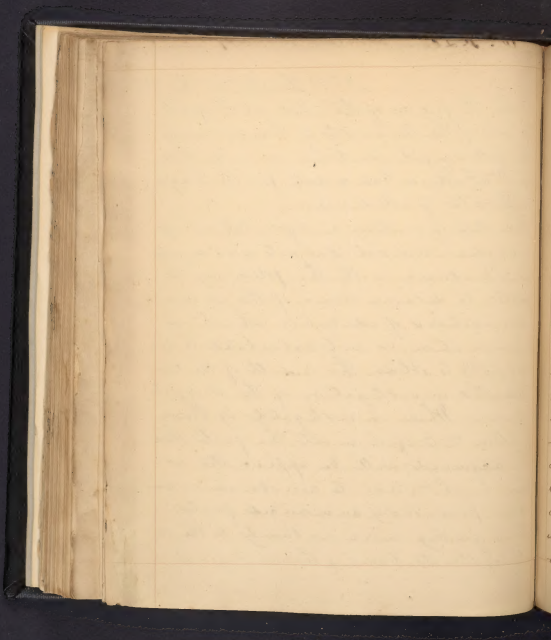


N^o 121 South Ninth. *7

To the Professors of the Medical Department of the University of Pennsylvania the following Dissertation is submitted, by Wm S. Lee, a candidate for the Degree of Doctor of Medicine.

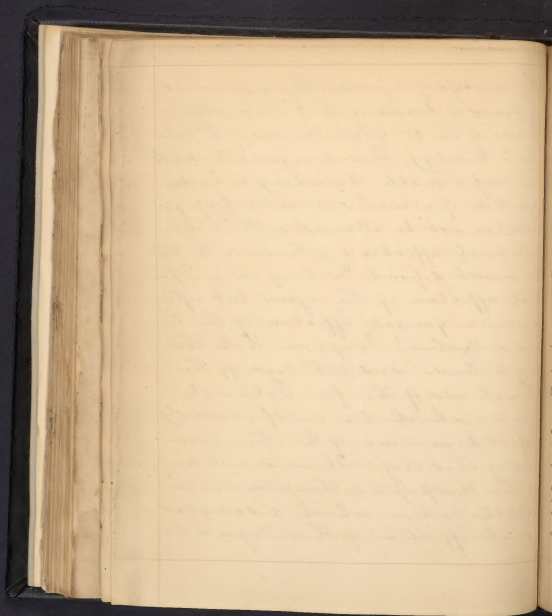
The duty of writing a dissertation upon some Medical Subject was enjoined I presume with the following objects: to discover some of the minor acquisitions of education which an examination is not calculated to develop & to obtain the results of the candidates investigation of the subjects chosen. When investigated by Observation & Experiments, the facts thereby acquired, will be appreciated as they might serve to corroborate or weaken previously announced facts: thus giving more certainty to the only legitimate bases of theories viz. well



established truths. Besides exposing what
Dr Cullen has stigmatized by the epithet
"False Facts", such species of investigation
might develop new & unobserved truths
and thus increase or diminish the valid-
ity of existing systems. Circumstances
have not permitted me to prosecute the
investigation of my subject in the above-
mentioned eligible manner. I therefore
will only communicate concisely, the in-
formation which I have otherwise ob-
tained. Dyspepsia is a disease which
is highly important, as well from the
number & interesting character of
its subjects as from its multifari-
ous connections with other diseases.
This term is derived from the Greek
words $\delta\upsilon\varsigma$ & $\pi\epsilon\pi\tau\omega$, which imply
imperfect concoction. It originated
in the too limited if not entirely erro-
neous notions of the ancients concerning

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the process of digestion. Dyspepsia is a Genus of disease of the 2nd Order, Adynamia, of the 2nd Class, Neuroses of DeCubert's Nosology. This arrangement is not unexceptionable. According to his definition of various Diseases dyspepsia must be attended with ^{altered} natural affections of Sense or Motion or must depend, not upon a Topical affection of the organs but upon a more general affection of the Nervous System. I suppose that the word Sense is used to signify the functions of the five External Senses, which are conspicuously affected in some of the other diseases of this class. There is not one of the dyspeptic Symptoms enumerated by him which discovers a great affection of these organs as



is observable in many diseases of other
classes. Dyspepsia therefore is not
attached to this class by "Prenatural
Affections of Sense" as a Diag-
nostic Symptom. Some of what are
called Internal Senses viz Hunger
Thirst, Nausea &c, referable to the Stom-
ach are obviously much affected.
Dr Cullen I think had no allusion
to these. The same objection is equally
applicable to "Prenatural Affec-
tions of Motion"; Dr Cullen not mean-
ing the motions of Internal parts.
The Third general characteristic
of Nervous diseases viz. dependence,
"not upon a Topical affection, but
upon a more general affection
of the Nervous System", is not in
all cases applicable to dyspepsia.
In cases of Hereditary Nervous

Temperaments, this disease might be immediately dependent upon, a more general affection of the Nervous system, that general affection constituting the predisposition. This characteristic is applicable to such cases, but, when the Nervous temperament is required, the dyspepsia is often the primary disease & then is independent of any general affection. The assumption of such independence is warranted, at least, by the fact, that if there is any dependence it is not perceptible by us & our inability to prove the contrary position does not in any wise establish that.

These objections to this part of Dr Cullen's Nosology do not spring from any feeling of disrespect towards that great man, but from

a greater attachment to truth than
to author. ty. He has diligently laboured
in the field of Science & his labour
has yielded much fruit to discrimi-
nating physicians, who are not
so dazzled by the splendour of
some truths as not to notice con-
comitant errors. Dropsy of sea is
a disease of the Digestive Sys-
tem, & has been divided into Sym-
ptomatic & Idiopathic. In the first
the disease is connected with and is
dependent upon a diseased con-
dition of some part or parts
other than the Alimentary Canal,
as the Liver, Spleen, Pancreas &c.
In the second there is no such
connection & dependence prima-
rily, tho', the long continuance
of the disease might produce



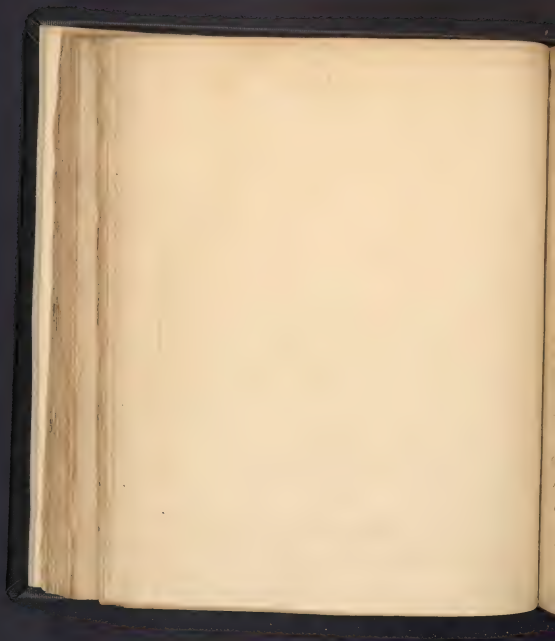
such connection & dependence.

The symptoms of this disease vary according to the extent & character of the part implicated. I will first enumerate those which designate the most simple form of dyspepsia & afterwards will mention some, which are anomalous & characteristic of its more complicated forms. Of the first are, Nausea, Vomiting, Sour Eructations, Cardialgia, Gastrodynia, Eructing sensation at the stomach especially when it is empty, Pyrosis, Constipation, Pain of the whole surface of the body, disordered appetite, Small & Chordal Pulse. Of the second are, disordered vision & various diseases of the organs of that sense. Palpi

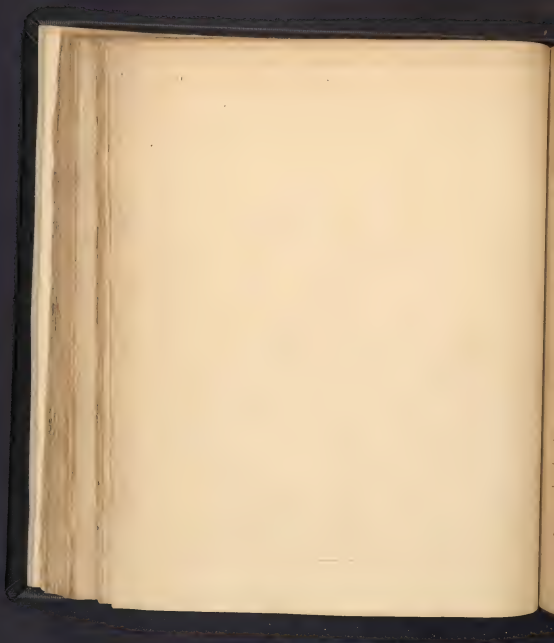


-tation of the Heart, disordered condition
of the Menstruation, the Urine being
sometimes Milky or saccharine. The Se-
cra often are of a Clay & Rich colour.
The appearance of the Tongue is gene-
rally unhealthy. A sense of oppression
after meals. An uneasy circulation
sometimes obtuse pain in the skin
of the back between the Scapulars
Great Drowsiness, dependent upon
constipation. Anxiety about the
precordias. The above are some of
the symptoms which serve to es-
tablish the existence of dyspepsia.
An enumeration of all the symp-
toms which indicate disorder of
the digestive apparatus would
involve a partial history of ma-
ny diseases.

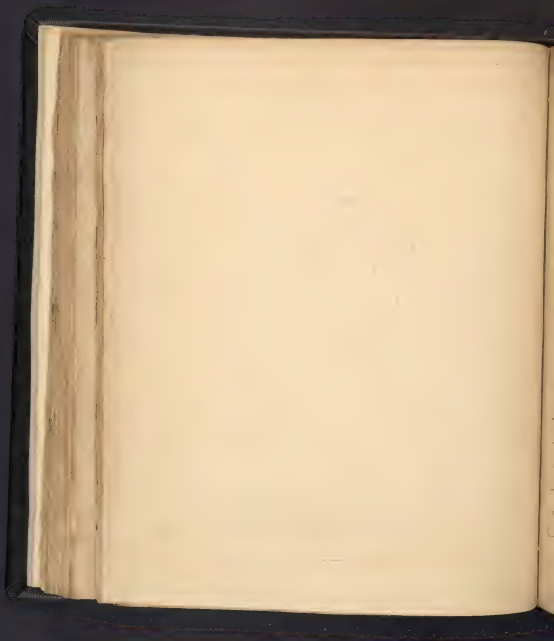
From the Situation of the parts



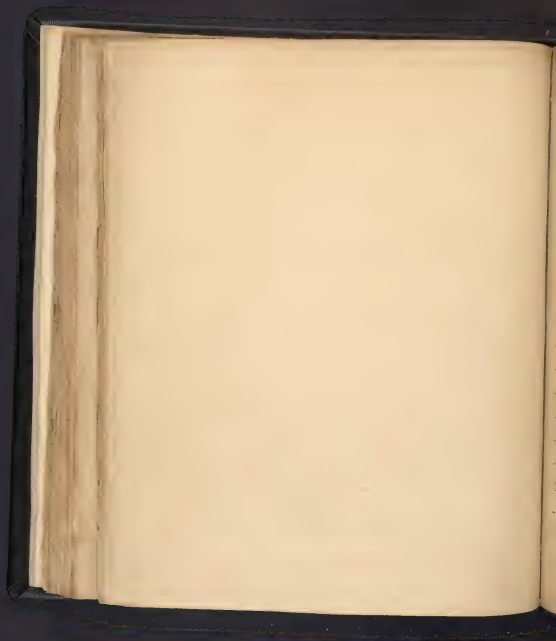
concerned by from the chemico-
croachments of the disease it is
difficult to recognize the variate
and from healthy action. This dif-
ficulty is greatly augmented by
the uncertainty respecting the na-
ture of that healthy action.
At various times to be various
authors, Heat, Fermentation, Mus-
cular Action, Solution & Galvan-
ic Action, Separately or various-
ly conjoined have been consid-
ered chiefly in connection with the
process. Some of these agents cer-
tainly are concerned & have great
influence in the process, but
I am not prepared to assign to
them their respective degree of
importance. That they do not
affect the process independent



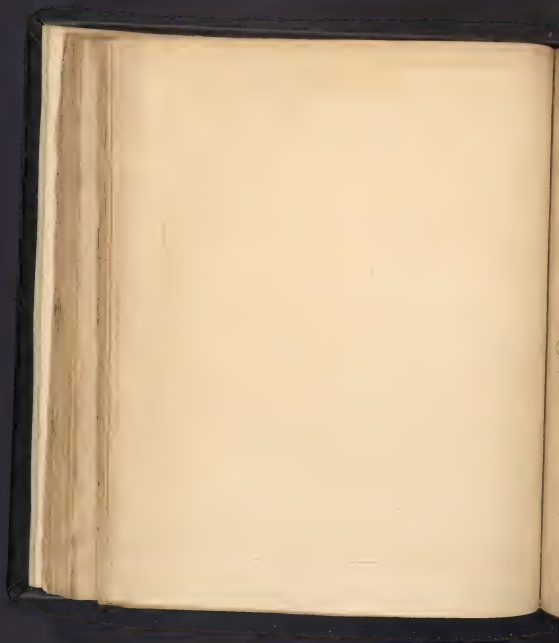
ly & exclusively is, proven by their in-
fluence to elaborate chyle under
the most favourable circumstan-
ces, the influence of Vitality be-
ing wanting. I will therefore con-
sider those which exert any agen-
cy as Sub-agents, acting under
the control & modification of
that spiritual principle. Perhaps
too little influence is at present
ascribed to Muscular Action.
It is not to its comminuting
operation that I allude. The pas-
sage through the Stomach of
Soft Substances as Grapes &c. in-
dicates, shows that its opera-
tion in that way is not in-
considerable. But it is adjuvant
thus: it contracts the Stomach
upon its contents, thereby ma-



king the influence from those
containing it in general. It is far the
most important by propelling the
Chyme thro' the Pylorus. How
far the Nerves & the Stomach
are concerned I know not fully,
theoretical notions ascribe to
them considerable influence.
The agency of the Hepatic system
in digestion is very material.
The Bile gently stimulates the
intestine, to a due Peristaltic
motion. This is inferred from
the diminution of that motion
when the ordinary quantity
of that fluid is not poured
into the intestine, as in Jaun-
dice. It has been supposed to aid
also in the separation of the
Faeces from the Chyle; it is



ous part uniting with the former
to the aqueous with the latter.
I have said thus much concern-
ing digestion that some obser-
vations in relation to the Pa-
thology of Dyspepsia, might
be more easily introduced.
I am unable to detail the pa-
thological views of the various
authors who have written upon
the subject & perhaps the in-
conclusive nature of their inves-
tigations renders it unneces-
sary. In Dyspepsia the se-
cretory functions of the Stom-
ach are disordered. & I have
already said that when a
Secretory Organ is much irri-
tated, the Secretory process of
that Organ is disordered.



Confiding in the truth of this prin-
ciple & also considering it as
a legitimate assumption that
there frequently is great Irritation
in the Stomach (amounting
sometimes to effluvia) the disor-
der of its secretory Functions
is a plain a posteriori infer-
ence. This view is corroborated
by the following circumstances.
In Pyrosis, the Exhalants
(which probably secrete the Gas-
trics Juice) pour out a fluid
different from Gastric Juice.
The secretion of Mucous is also disor-
dered, as is evidenced by the Sponta-
neous or Artificial vomiting of a
peculiarly large quantity of
that fluid. Might not a super-
abundance of Mucous, by lining

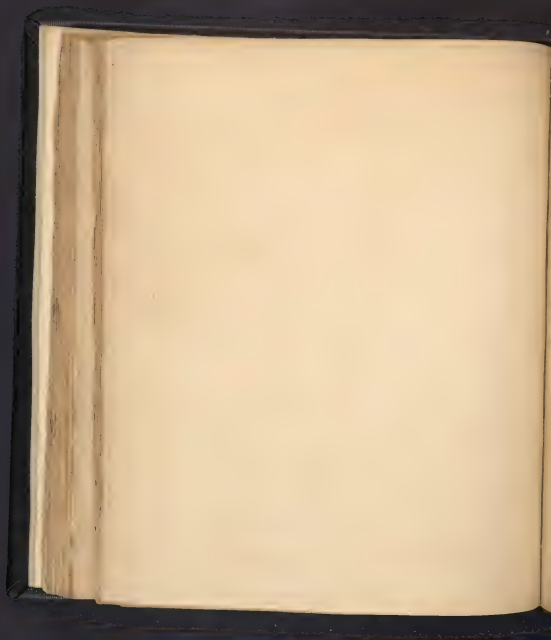


the internal Surface of the Stomach prevent the effusion of Gastric Juice into the cavity of that Organ & also prevent ingesta making an efficient impression on the Nerves of the Stomach. That the Nerves of the Stomach are implicated in the disorder of that Organ is highly probable. The sensation of oppression after eating denotes an alteration in the condition of those Nerves. If they continued sound, Ingesta which in health do not produce any unpleasant sensation but on the contrary pleasure, would not be followed by that oppression. The property too of adapting to the Sensibility of the Stomach the quantity & quality of the Ali-



-ment which shows an alteration
in the natural condition of that
viscus. Considering the Nervus
the organ of Sympathy, we must
infer from these disorders a corre-
sponding disorder in the Symp-
athetic relations of the Stomach.
That such is the case is rendered pro-
bable by certain symptoms.

The mucus in the Stomach of an
acid is very viscid. This appears to
be the result of the Acetic Fermen-
tation in the food, & indicates a
diminution in the energy of Vitali-
ty: the operation of that principle
& that of all Chemical powers be-
ing in an inverse ratio to each
other. The Secretion of Bile is af-
fected. This is deducible from the
Clay & Ash colour of the Stool, pre-



-suming that the healthy aspect
of the face is dependant upon
their admixtures with bile. The
torpid state of the Bowels also
tends to substantiate this assump-
tion. The affection of this secretion
is rendered farther probable by the
consideration that "a Costive State
is generally attended with a slow
circulation in the veins belong-
ing to the Hepatic System". Fe-
ces accumulated in large quantity
in the intestines, press upon the
veins of the Mesentery which go
to form the Vena Portarum and
thus diminish or retards the af-
flux of blood to the liver. The blood
being its appropriate stimulus,
any diminution or retardation
of it must diminish the heat



the excitement & thereby the heal-
thy secretion of the Liver.

Examination, post mortem, has
not thrown much light upon
the pathology of this disease.
This is in part owing to the cir-
cumstance that few dyspep-
tics die of this disease but of
some other.

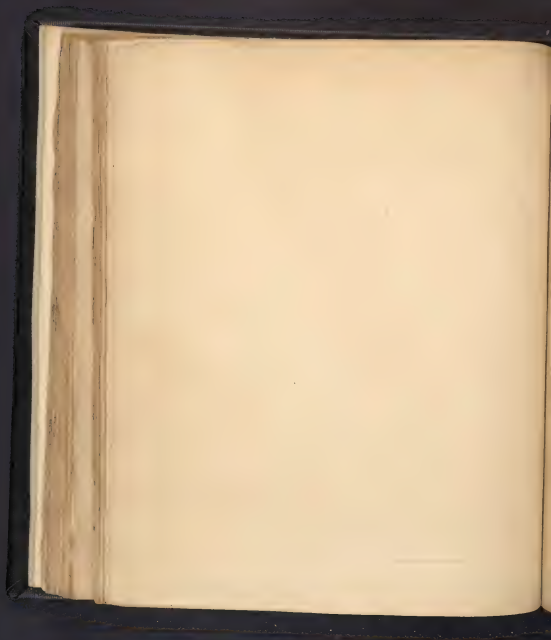
Of the Remote causes of Dyspepsia
there are two classes viz One which
operates immediately upon the stom-
ach & the other, whose operation is medi-
ate, thro' the intervention of some
other part, or of the whole of the
system. Of the first are, Irregular
or unnatural Irritation, occasion-
ed by the improper use of Meat
& Drink, either as regards their
quantity, quality, or the time by which



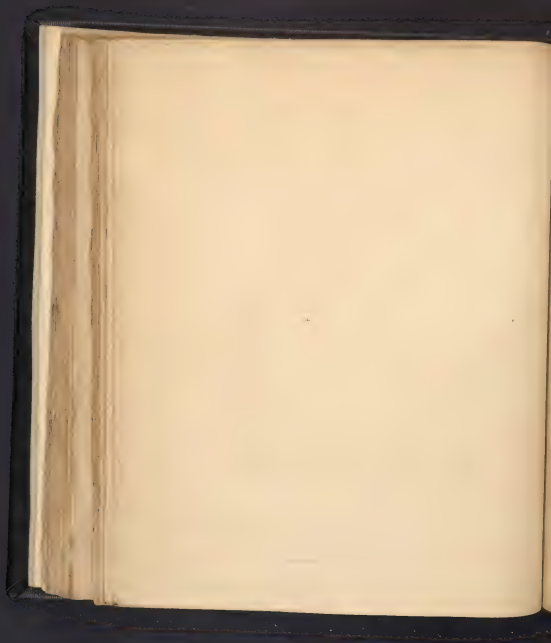
The improper use of medicines, espec-
ially Emetics & Purgatives: the latter
including Tea, Coffee, Tobacco and
Opium. Almost all diseases which
materially affect the System.

Of the other class of causes I will enu-
merate, Indolence & Sedentary liv-
ing. Excessive employments of the
Mind or Body. Excessive Fasting
and Abstinence. Great exertion
without unusual gratification.
Great irritation of certain parts
with which the Stomach close-
ly sympathises, as the Throat & In-
flammation from Stricture. Expo-
sure to moist & Cold Air with-
out at the same time using ex-
ercise. Improper Clothing.

In the Treatment of Dyspepsia
there are Two Indications viz. as



palliative is a curative. The first
is to be accomplished by miti-
gating or removing certain symp-
toms which greatly aggravate the
disease (of which indeed they form
a part) & distress the patient.
They are Costiveness, Acidity &c.
The means of combating the first
should vary with the variety of
the causes of that symptom.
As this symptom constitutes a
very prominent feature in dys-
pepsia, I will enumerate some
of its alleged causes. They are;
General Debility extending to the Muscular
Fibres of the bowels. Diminished Secre-
tion of Bile. Too great rigidity of the mus-
cular fibres of the bowels. Too great
action of the Absorbents (Especially
those of the left portion of the Stom



ach) whereby the faeces are left in a
state of great dryness & therefore are
with difficulty propelled downwards.
It is said to be caused also by an
enlargement of the glands of the
Rectum, which dim in it's and
are obliterated it's cavity. It may
be caused by a stricture of the
Intestines. It may also be caused
by an enlargement of the Cells of
the Large Intestines, consequent
to the too long retention of the fae-
ces: the enlarged Cells retaining
the faeces which operates as extra-
neous matter producing irrita-
tion & consequent debility.

It is evident that Constipation
will require a treatment which
must vary with it's Cause.

This treatment might be arran-



gels under two heads Viz Surgical
& Medical. In the first Mechan-
ical means chiefly, are employed
as Suppositories, &c. In the second
a multitude of means have been
resorted to, all of which may be
arranged under the heads, Diet,
Cathartics, Tonics, Purgatives, Reg-
ular efforts to evacuate the bow-
els, & Emmetas. These means
when judiciously employed gene-
rally alleviate the sufferings of
the patient. In some cases by
establishing a habit of periodi-
cal evacuation & by strengthening
the bowels they cure this affection.
This symptom however is general-
ly dependent upon & so intimate-
ly connected with some of the
other symptoms of the disease



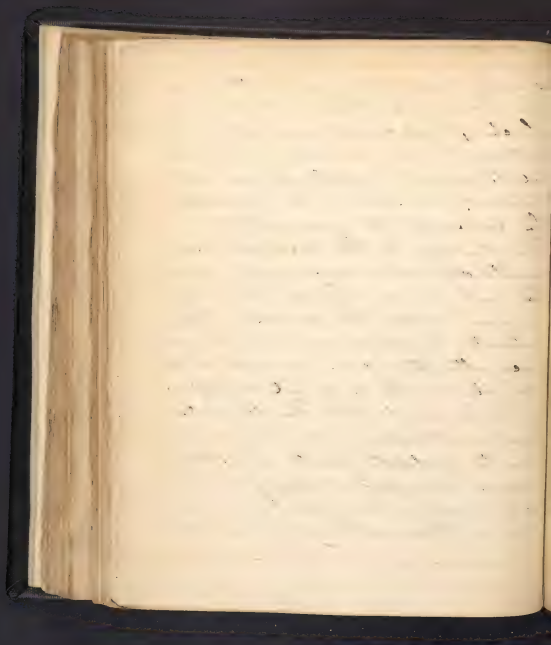
that it can be cured only by the cure
of those symptoms. The agitation of
the body produced by riding on horse
back or by other means is a
reaction in consequence of constipation &
must be considered mechanical tho'
it is useful in cases which are cured
by medicine. To relieve Acidity of Stomach,
Absorbent & alkaline substances &
Tonics (chiefly Minerals) are employed.
They operate; the first, by absorbing
the acid; the second by neutralizing it
and the third by invigorating the stom-
ach & thereby giving to it a mastery
as chemical agency. The use of
foods which it acts on digestion
is not very permittable & highly
important in the treatment of
this affection.

The Second or Curative Indication



is considered by many unattainable. The small share of success which physicians have had in the treatments of this disease is calculated to repress very sanguine expectations but should not induce the belief of its incurability.

The success of the medical treatments depends very much upon the influence which the physician has over the minds of his patients. His remedies which embrace alterations in long established habits, both of mind & body, are apt to be neglected. He should have persuasive power to give to remote goods so great a predominance over present enjoyments as to make the pain of privation or other existing pain, endu-



reds. The Remedies are two kinds viz
Such as operate Immediately up-
on the Stomach or Such as have
a mediate operation upon that
viscus, parts other than the
Stomach constituting the medium.

Of the second class the practitioner fre-
quently can not avail himself from
circumstances of living in the
patients. They are the proper use
of what old physicians absurdly
called, Non-naturals, viz Meats
& Drink, Motion & Rest, Sleep &
Watching, Affections of the mind,
Temperature, Clothing &c.

Of the first class many medicines
have been used, tho without that
vain moth exaguation which too
often accompanies the introduction
of new remedies. The following are

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some of the most important: Emul-
sions of Speacacanthas or Tartar Emetics.
These are given to remove from the
Stomach offensive matter & to supplant
diseased actions by their continued
specific impressions. To effect these
objects they should be frequently
repeated. Purgatives are next to be
administered. Rhubarb & Magne-
sia are extolled. The latter, in the
calcinied form, combined with Rheu-
barb is well adapted to cases in
which there is much acidity.

Having provided a sufficient -
number of the above wacuanths,
or others which might be preferred.
Tonics should be used. They are
either Vegetable or Mineral. Of
the former, Gentian, Quassia, Hop,
Peruvian Bark, Sampson-Snake



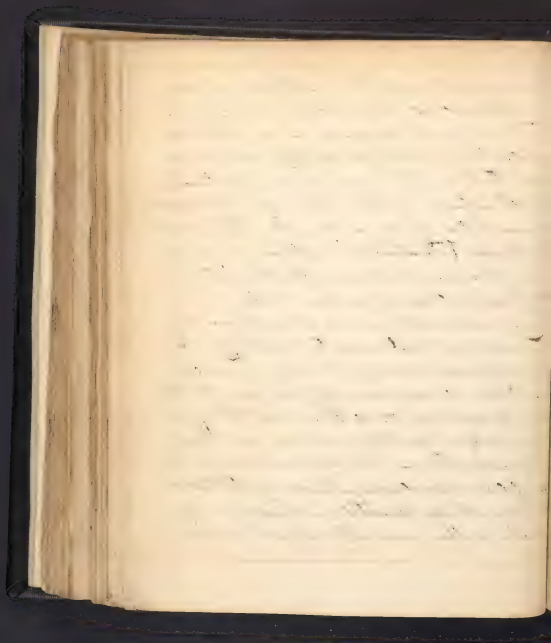
roots &c are differently estimated by
different persons. Of the Minerals
the following are some of the best.
Carbonate of Iron, Sulphate of
Iron, Phosphate of Iron or Submi-
nate of Bismuth. I think it un-
necessary to mention the various
preparations of the above medicines
in use. They all are well suited to
the case & have their respective
advocates. The last mentioned ar-
ticle is perhaps the most pow-
erful. Its reputation has survived
the "bloom of novelty," we are there-
fore to suppose that it was not
overrated.

This disease is often very irregular.
The treatment must vary to suit
such irregularities. In violent Car-
dialgias, the best remedies are



Lime-water to Milk & Alkaline pre-
parations as the Ashes-mixture.
Violent Gastrodynia is most suc-
cessfully treated by Antispasmodics,
as Aether, Opium, Turpentine,
distention of the Stomach by large
draughts of New-milk, Warm
Cordials, Volatile Tincture of Guai-
acum, Oleum Succini, Bismuth
& Sampson Snake roots.

Very violent Pyrosis sometimes de-
mands a treatment relating al-
most exclusively to itself. This af-
fection is uncommon in very North-
ern Countries, & is the result of a
morbid secretory action in the
Stomach. When it is caused by the
excessive consumption of Salted
& Smoked Meats, a change of
diet will generally effect a cure.



It often exists however when there is no such cause & then is treated by Emetics, Bismuth & other means which are calculated to subvert diseased action.

When Dyspepsia is continued by habit, - Mercury should be used.

It is advised to use four grains of the Blue Pill every night & on the succeeding morning to administer a mild Laxative. The correlative influence of disease & habit is an interesting subject & will undoubtedly, most greatly assist in the cure of many diseases. There is described by Dr. Joseph Chapman, a variety of Dyspepsia which depends upon a slow species of chronic inflammation. It is known by the following symptoms: "A strong sensation of heat & pain



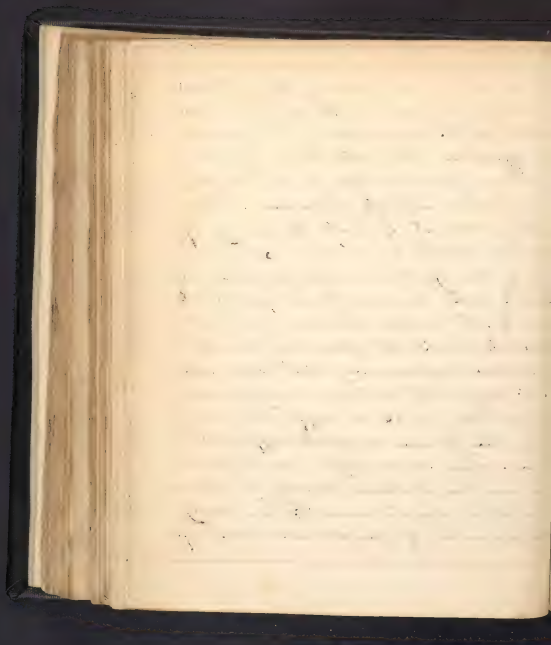
at the part of the stomach, a pulse,
Large, chroded & quick; Heetie Suffe-
sion; a hard, dry cough; Some was-
ting of the flesh & skin, &c.

It has many symptoms which are
common to it to Phthisis; Pulmonali,
& there fore is apt to be confounded
with that disease. It is curable by
Frequent, Small bleedings & by Op-
reman & Mercury used Sepa-
rately as alteratives.

Also occasionally we meet with an tri-
ginal dyspeptic affection to be traced
directly to the influence of Opium,
Liquors. It is characterized by extraor-
dinary debility & irritability of the Stom-
ach. Here, the sudden & total abscas-
tion of accustomed Stimuli, should
be carefully avoided. Nourishing
diet & Stimulating Tonics are most



efficacious. In cases of Symptomatic Dyspepsia, the prominent Indication is, the removal of the primary affection. The alleviation of distressing gastric Symptoms, making a Subordinate Indication. The nature & seat of that primary affection & the violence & character of the gastric Symptoms will point out the most proper treatments. It is now I believe generally agreed that all particular directions concerning diet are useless: different articles being more or less congenial in different cases, & in the same case at different times. The wide difference observable in the dietetic precepts of respectable physicians & the daily experience of most invalids, sup-

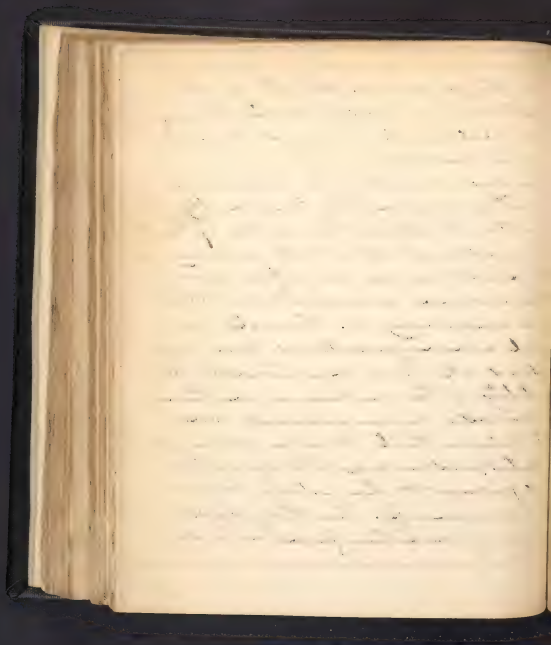


efficiently show the futility of such particular directions. These observations are not meant to deny the importance of a well regulated diet but to show that personal experience alone, is the proper guide. Perhaps the advice of an eminent physician upon this subject is most worthy of imitation. He directed his patients to keep a written account, in the Banking Style of Debit & Credit, of the effects of different articles. Thenceby they will soon acquire a knowledge of the adaptation of different kinds of foods to their particular cases. The digestive organs being weak should not be required to make great exertion. On the part both of



the physician's patient's great
patience is indispensable: the prep-
aration being as chronic
as the disease.

In my account of the treatment
of *Epilepsia* I intentionally
omitted to detail the virtues of the
Sampson Snake-root, wishing
to exhibit in an unbroken view
the evidence which I have obtain-
ed concerning it. Several Ver-
bal communications from per-
sons who have experienced the
utility of the medicine in their
own cases, have induced me
to believe that it is a powerful
Antispasmodic. Its operation
is prompt to the relief it gives,
permanent. The Subjoined
Copy of a Letter from a Res-

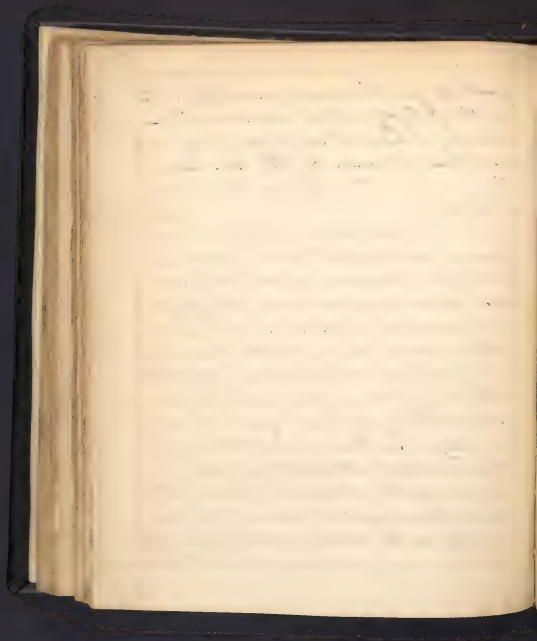


pected gentleman, contains the
most satisfactory information
which I have acquired respect-
ing the efficacy of this medicine.

Charleston Oct 25th 1820.

Dear Sir.

In compliance with your request
to me, in yours of the 16th Inst. respecting the
effect of the Sampson Snake-root and a
description of my own case of Dyspepsia
I will endeavour to describe both as mi-
nutely & correctly as possible. I am now
in my 60th year & have been afflicted
with indigestion for upwards of 30
years - the symptoms of which were
generally, heartburn, acidity & some-
times violent attacks of spasm in
the pit of the Stomach - these latter
symptoms used to occur least fre-
quently in the earlier part of my life



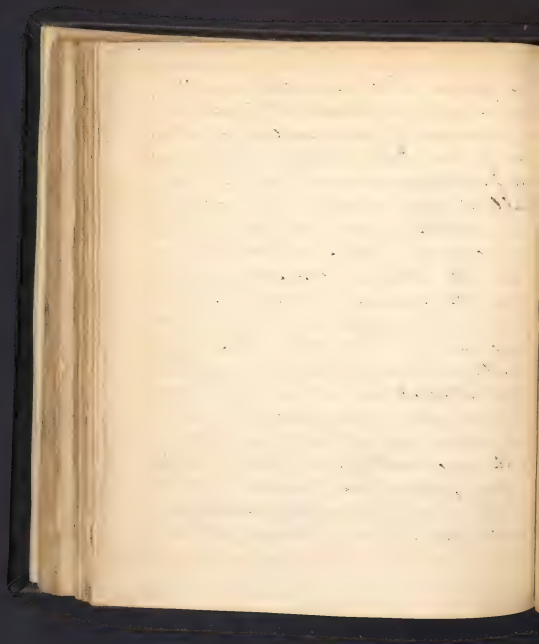
than after wards - but as the stomach
became more debilitated by every attack
and from a want of due caution in
obtaining from rich & high season-
ed food the Spasms became much
more frequent & violent every year -
sometimes occurring suddenly with-
out any previous indication, while
walking in the streets, and sometimes
ceasing as suddenly before I could
get home - these attacks became
extremely dangerous to my life often
depending on my procuring immediate
assistance from a Physician. In the year
1803 I went to Europe where I contin-
ued travelling through various coun-
tries, until the latter end of the year
1807 when I returned to Charleston.
During all that period this dread-
ful disease continued its attacks -



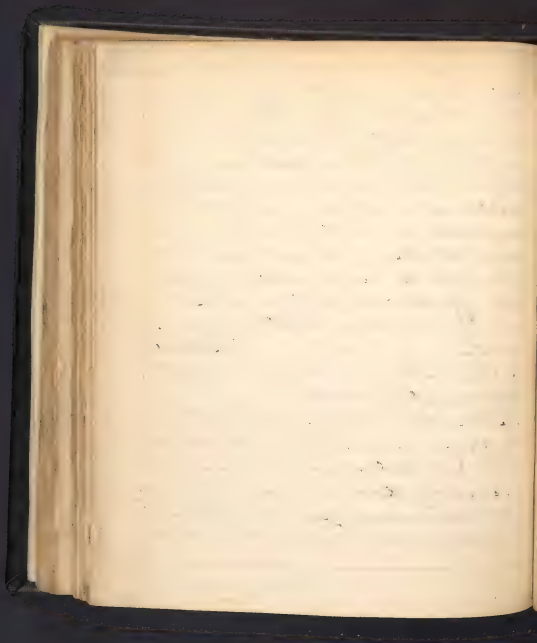
more or less frequent. My life was
in extreme danger from the violence
of these Spasms, in London at the
Plague & in Paris. In the former
place I was attended by Doct. Ma-
thw Bailey, and in both the other
cities also, by celebrated Physicians &
none of whom pretended to do more
than to restore my health, for the
time, alleging, that a radical cure
was not to be expected, but that
my health depended upon my using
caution in eating & drinking on-
ly such things as my own expe-
rience found to agree with my
stomach. On my return to Caro-
lina, however, I found in a Friend
and near Connection (Dr Archi-
bald Campbell of Beaufort S.C.)
one who appeared confident in



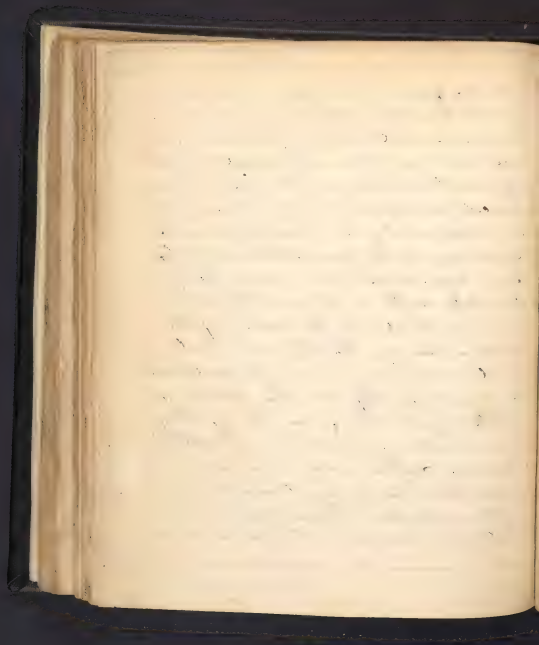
His opinion, that he could radically
cure my complaints, at least for
a number of years - and this by the
use of Sampson Snake Root - a Rem-
edy for Dyspepsia which he had
recently discovered. On my visiting
him at Beaufort just after my re-
covery from a severe attack, I com-
menced taking his medicine, a
quantity of which he kept by him,
finding it very efficacious in almost
every case of indigestion. The Ingre-
dients were, namely, an Ounce of the
Root steeped in a Pint of Brandy.
The manner of my taking it was
as follows. 173 a half hour before
late my breakfast I took a Table-
-spoon full of the Lincture mixed
in the same quantity of Water and
a small lump of Sugar. This



doe. I again repeated one Loe before
dinner & continued to take the same
was day regularly & without inter-
mission, for ten days, during
which time my diet was plain & my
meals rather slender. The Doct then
informed me that it was unneces-
sary to take it longer than that
time & that he conceived my cure
to be effected & that I might eat
what I pleased without danger of
a return of the Spasm. I returned
to Charleston a short time after
and completely tested the efficacy of
the Snake roots by gradually in-
dulging in whatever my appe-
tite relished - partaking of the
richest foods & in fact living as
if I had never been troubled with
Dyspepsia. This continued for



about Six years: Other experienced severe
attacks, some of them very violent.
Having recovered however, by the aid of a
Physician; as soon as I gained strength
sufficient to take exercise I again com-
menced a course of the tincture for
ten days as before. This was in the
beginning of the year 1810, nearly six
years ago, and I have never been
attacked with it since. I forgot to
mention that I took some of the
tincture during the spasm but
found no relief from it, and was
advised to postpone the taking of
it till I got better from the effects of
other kinds of medicines. (Purgatives).
I did so & after using it as above,
found the tone of my stomach per-
fectly restored. I therefore think
that the stomach should be prepa-



red previously to a course of the tinc-
ture, by a dose or two of Magnesia
or Rhabarb. The great benefit I ex-
perienced from it was taking it
just after a good deal of medicine
taken in my illness. I have relieved
many persons, with this remedy &
restored them to health when they
have been worn down & quite im-
paired by protracted indigestion.
If the foregoing observations can
be of any Service to you it will
give me great pleasure that
I have had it in my power to
contribute my trifling assistance
and you have my sincere wishes
for your complete success in the
undertaking you propose, and am
Dear Sir Your O. Serv^t

Wm Brisbane

A review of what I have written ex-
cites a wish that I had time to
shorten some & to lengthen other
parts.

